

CATALOGUE OF CHITON (AMPHINEURA, MOLLUSCA) TYPES IN THE NATIONAL MUSEUM OF VICTORIA, AUSTRALIA

By BRIAN J. SMITH

Curator of Invertebrates

and RALPH C. ROBERTSON

40 Jasper Road, Moorabbin, Victoria 3189

Abstract

Details of the type specimens of 39 species of chitons held by the National Museum are given. These include primary types of 16 species. All are listed by their original genera.

Introduction

The extensive collection of chitons in the National Museum contains type material of 39 species, including primary types of 16 species, the remainder being secondary types. Although the general reference collection contains two large comprehensive chiton collections (the A. F. Basset Hull Collection purchased in 1946 and the J. S. Mackay Collection bequeathed in 1934), the types of most of the species they described were lodged elsewhere prior to the Museum's acquisition of these collections.

In the latter part of last century J. Bracebridge Wilson carried out a faunal survey of the lower part of Port Phillip Bay, Victoria, under the sponsorship of the Royal Society of Victoria. The chitons from this survey were described by E. R. Sykes, including six new species, the types of which were originally lodged in the Museum of the Melbourne University Zoology Department. However, they were transferred to the National Museum on 28 January 1931. The MUZD Reg. Nos. are given with these species. Most of the remaining types, and especially those of the species represented by secondary types only, were obtained as part of the Hull Collection. However, because of the potential importance of the knowledge of the source collection, and the large number of such collections contributing specimens to this list, the source is given with each species.

The original generic names are used, arranged alphabetically, and under each genus the specific names are so arranged. All the specimens are dry unless otherwise stated. Where the valves have not been disarticulated, the specimens are described either as *entire* (for specimens with only the valves and girdle present) or *entire with animal*, for specimens when the dried body is also present. Where species have been synonymized in subsequent revisions, the currently accepted status is recorded with its authority.

The following abbreviations are used in the text for States: Vict. = Victoria, Tasm. = Tasmania, Qd. = Queensland, N.S.W. = New South Wales, West. Aust. = Western Australia, S. Aust. = South Australia; and for Museums: AM = Australian Museum, Sydney; AIM = Auckland Institute and Museum, New Zealand; DM = Dominion Museum, Wellington, New Zealand; MCZ = Museum of Comparative Zoology, Harvard University, U.S.A.; QM = Queensland Museum; SAM = South Australian Museum; TM = Tasmanian Museum; WAM = Western Australian Museum.

Genus *Acanthochites* Risso, 1826

Acanthochites (*Notoplax*) *glyptus* Sykes, 1896

Proc. malac. Soc. Lond. 2: 92, pl. 6, figs. 5-5a.

HOLOTYPE: F680, entire specimen with animal, with three valves separated from it (Old Reg. 61900).

PARATYPE: F27307, one entire specimen found with the holotype (Old Reg. 61901).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 906.

Acanthochites leuconotus Hedley & Hull, 1912

Proc. Linn. Soc. N.S.W. 37: 275, pl. 12, figs. 4a-f.

PARATYPE: F27308, one entire specimen with animal (Holotype in AM C33118).

LOCALITY: Lord Howe Island.

NOTES: Specimen from Hull, in Gabriel Coll.

Acanthochites pilsbryi Sykes, 1896

Proc. malac. Soc. Lond. 2: 91, pl. 6, figs. 6, 6a.

HOLOTYPE: F678, entire specimen with animal, valves damaged (Old Reg. 61899).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 903.

Acanthochites (Notoplax) wilsoni Sykes, 1896

Proc. malac. Soc. Lond. 2: 92, pl. 6, figs. 2, 2a.

HOLOTYPE: F679, entire specimen with animal, with three valves separated (Old Reg. 61902).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 907.

Genus **Acanthochiton** Herrmannsen, 1846

Acanthochiton complanatus Hull, 1925

Proc. R. Soc. Qd. 36: 112, pl. 21, figs. 2a-c.

PARATYPES: F17979, three entire specimens with animals. F15155, one entire specimen with animal (Holotype in QM Mo1138).

LOCALITY: Magnetic Island, Townsville, Qd.

NOTES: From Hull Coll., original label missing from F15155.

Acanthochiton crocodilus debilior Iredale & Hull, 1925

Aust. Zool. 4: 87, pl. 10, fig. 13.

PARATYPE: F15124, one entire specimen with animal (Holotype in AM C51554).

LOCALITY: Bottle and Glass Rocks, Vaucluse, N.S.W.; in description 'Port Jackson and Shellharbour'.

NOTES: From Hull Coll., original label missing.

Acanthochiton (Notoplax) gabrieli Ashby, 1922

Trans. R. Soc. S. Aust. 46: 10, pl. 3, fig. 3.

HOLOTYPE: F447, entire specimen with animal (Old Reg. 71195).

LOCALITY: Caloundra, Qd., collected Gatliff.

NOTES: From Gatliff Coll.

Acanthochiton gatliffi Ashby, 1919

Trans. R. Soc. S. Aust. 43: 398, pl. 42, figs. 2-5.

PARATYPES: F27309, F27310, two entire specimens with animal (Holotype in SAM D12189).

LOCALITY: Port Lincoln, S. Aust. (type locality) and Point Cook, Port Phillip Bay, Vict., dredged in 8 fm on a tunicate (F27309, F27310).

NOTES: F27309 from Gatliff Coll.; F27310 from Gabriel Coll.

Acanthochiton macrocystialis Ashby, 1924

Trans. R. Soc. S. Aust. 48: 324, pl. 31, figs. 3a-c.

PARATYPES: F16717, two entire specimens. F17984, one entire specimen (Holotype in SAM D10704).

LOCALITY: Point Puer, Port Arthur, Tasm., living on the roots of the alga *Macrocystis pyrifera*.

NOTES: F16717 from Hull Coll.; F17984 from Gatliff Coll.

Acanthochiton thackwayi Ashby, 1924

Trans. R. Soc. S. Aust. 48: 318, pl. 31, figs. 1-2.

PARATYPES: F17978, two entire specimens (Holotype in SAM D10716).

LOCALITY: Shellharbour, N.S.W.; in description 'Fly Point, Port Stephens, N.S.W.', collected Ashby.

NOTES: From Hull Coll.

Acanthochiton zealandicus doubtlessensis Ashby, 1926

Proc. malac. Soc. Lond. 17: 12, pl. 1, figs. 2a-c; pl. 2, fig. 6.

= *Acanthochiton zealandicus hookeri* (Gray 1843) after Iredale and Hull 1930.

PARATYPE: F16376, one entire specimen (Holotype in SAM D11109).

LOCALITY: Doubtless Bay, North Island, New Zealand.

NOTES: From Hull Coll.

Genus **Callistelasma** Iredale & Hull, 1925**Callistelasma periousia** Iredale & Hull, 1925

Aust. Zool. 3: 353, pl. 40, fig. 8.

PARATYPES: F15560, two entire specimens (Holotype in QM Mo1209).

LOCALITY: Grassy Island, Whitsunday Group, Qd., collected Hull, May 1924.

NOTES: From Hull Coll.

Genus **Chiton** Linnaeus, 1758**Chiton inornatus** Tenison-Woods, 1881

Trans. Roy. Soc. Vict. 17: 82, figs. 8-9.

HOLOTYPE: F637, entire specimen (Old Reg. 44690).

LOCALITY: Launceston, Tasm.

NOTES: Donated by Tenison-Woods on 12 November 1880. Iredale and Hull stated that the type was in the TM, but that institution holds no types of this species.

Chiton marmoreus var. coeruleus Winkley, 1894

Nautilus 8: 78, not figured.

PARATYPE: F16715, one entire specimen (Holotype in MCZ, MCZ 32856).

LOCALITY: Eastport, Maine, U.S.A.

NOTES: From Hull Coll., original label is on MCZ label. The number 1707 is written on the shell; its significance is not known.

Genus **Componochiton** Milne, 1963

Componochiton raceki Milne, 1963

J. malac. Soc. Aust. 7: 25, figs. 1-5.

PARATYPE: F23568, dry disarticulated valves of one specimen and the girdle and animal in spirit (Holotype in AM C63297).

LOCALITY: Port Stephens, N.S.W., from 75 fm, collected Racek on 3 July 1959 on 'Challenge'.

Genus **Enoplochiton** Gray 1847

Enoplochiton torri Bastow & Gatliff, 1907

Proc. Roy. Soc. Vict. 20: 27, pl. 3-4, figs. 1-12.

= *Squamopleura curtisiana* (Smith 1884) after Iredale and Hull 1927.

HOLOTYPE: F16375, disarticulated valves (Old Reg. 62655).

PARATYPES: F16374, two entire specimens with animals. F17986, one entire specimen and two entire specimens with animals.

LOCALITY: Qd., collected Torr.

NOTES: F16375 from Bastow Coll., F17986 from Gatliff Coll.

Genus **Glyptelasma** Iredale & Hull, 1925

Glyptelasma matthewsi occidentalis Iredale & Hull, 1925

Aust. Zool. 4: 95, pl. 11, figs. 18, 20.

PARATYPE: F15164, one entire specimen (Holotype in WAM 11660).

LOCALITY: Middleton Beach, King George Sound, West. Aust., collected Hull.

NOTES: From Hull Coll.

Genus **Ischnochiton** Gray, 1847

Ischnochiton acomphus Hull & Risbec, 1930

Aust. Zool. 6: 278, pl. 20, figs. 1-8, text figs. 1-24.

HOLOTYPE: F16711, entire specimen.

PARATYPE: F27311, disarticulated valves of one specimen.

LOCALITY: Baie de l'Orphelinat, Noumea, New Caledonia; the paratype bears only the locality 'New Caledonia'.

NOTES: From Hull Coll.

Ischnochiton araucarianus Hedley, 1898

Proc. Linn. Soc. N.S.W. 23: 100, text figs. 3-6.

= *Squamopleura miles* (Pilsbry 1893) after Iredale and Hull 1927.

PARATYPE: F16712, one entire specimen with animal (Holotype in AM C4344).

LOCALITY: Isle of Pines, New Caledonia, collected Hedley, October 1887.

NOTES: From Hull Coll.; the data is on a label bearing AM No. C4344.

Ischnochiton atkinsoni brunyensis Ashby, 1927

Pap. Proc. R. Soc. Tasm. 1926 (1927): 111, not figured.

PARATYPES: F16710, two entire specimens with animals (Holotype in SAM D11966).

LOCALITY: South Bruny Island, Tasm.

NOTES: From Hull Coll.

Ischnochiton atkinsoni lincolnensis Ashby, 1920

Trans. R. Soc. S. Aust. 44: 275, pl. 12, figs. 5a-b.

= *Ischnochiton variegatus* (Adams and Angas 1864) after Iredale and Hull 1927.

PARATYPE: F17988, one entire specimen with animal (Holotype in SAM D11763).

LOCALITY: San Remo, Vict.

Ischnochiton (Isochiton) bardwelli Ashby & Cotton, 1934

J. Proc. R. Soc. West. Aust. 20: 217, pl. 13, fig. 5.

HOLOTYPE: F17977, entire specimen.

LOCALITY: Broome, West. Aust., collected Bardwell.

NOTES: From Bardwell Coll.

Ischnochiton crispus var. decorata Sykes, 1896

Proc. malac. Soc. Lond. 2: 87, not figured.

= *Ischnochiton elongatus* (Blainville 1825) after Iredale and Hull 1927.

HOLOTYPE: F683, entire specimen with animal (Old Reg. 61903).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 890.

Ischnochiton examinandus laetior Hull, 1923

Aust. Zool. 3: 160, pl. 24, figs. 14-17.

PARATYPES: F13084, four entire specimens. F13085, ditto. F15158, one entire specimen (Holotype in AM C49543).

LOCALITY: Caloundra (F13084, F15158) and Point Cartwright (F13085), Qd.

NOTES: All from Hull Coll. The original label is missing from F15158.

Ischnochiton falcatus Hull, 1912

Proc. Roy. Soc. Vict. 25: 121, pl. 8.

HOLOTYPE: F732, entire specimen with animal.

PARATYPE: F27312, disarticulated valves of one specimen in box with holotype.

LOCALITY: Western Port Bay, Vict., dredged in 6-8 fm between Phillip and French Islands by Gabriel.

NOTES: A label with the paratype states '3 valves figured'.

Ischnochiton gabrieli Hull, 1912

Proc. Roy. Soc. Vict. 25: 120, pl. 8, figs. 1a-f.

HOLOTYPE: F733, entire specimen.

PARATYPE: F27313, disarticulated valves of one specimen in box with holotype.

LOCALITY: Western Port Bay, Viet., dredged in 6-8 fm between Phillip and French Islands by Gabriel.

NOTES: A label with the paratype states '3 valves figured'.

Ischnochiton (Haploplax) pura Sykes, 1896

Proc. malac. Soc. Lond. 2: 88, pl. 6, figs. 3, 3a.

HOLOTYPE: F681, entire specimen with animal, one valve missing (Old Reg. 61894).

PARATYPES: F27314, two entire specimens with animals (Old Reg. 61895-6).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 897.

Ischnochiton wilsoni Sykes, 1896

Proc. malac. Soc. Lond. 2: 89, pl. 6, figs. 1, 1a.

HOLOTYPE: F682, entire specimen with animal, two valves separated (Old Reg. 61897).

PARATYPE: F27315, one entire specimen with animal (Old Reg. 61898).

LOCALITY: Port Phillip Bay, Vict., collected J. B. Wilson.

NOTES: MUZD 898.

Genus **Ischnoradsia** Shuttleworth, 1853

Ischnoradsia australis divaricata Hull, 1923

Aust. Zool. 3: 196, pl. 27, figs. 1a-c.

SYNTYPE: F17976, one entire specimen (see notes).

LOCALITY: Point Cartwright, Qd., collected Hull.

NOTES: From Hull Coll. and noted 'type' in pencil on a label. However, Iredale and Hull (1927) state that the type is in the QM. This latter institution does hold three specimens labelled *Ischnoradsia australis* collected by Hull in August 1922 (the date of collection for the type material of this subspecies). These three specimens could be syntypes of this subspecies.

Genus **Kopionella** Ashby, 1919

Kopionella tasmanica Ashby, 1920

Trans. R. Soc. S. Aust. 44: 268, pl. 11, figs. 1a-c.

= *Kopionella matthewsi* (Iredale 1910) after Iredale and Hull 1927.

PARATYPE: F16720, one entire specimen with animal (Holotype presumed lost, see notes).

LOCALITY: D'Entreesteaux Channel, Tasm.

NOTES: From Hull Coll. The type could not be found in the TM, AM, or SAM and is presumed lost.

Genus **Lepidopleurus** Risso, 1826

Lepidopleurus badius Hedley & Hull, 1909

Rec. Aust. Mus. 7: 260, pl. 73, figs. 1-2.

PARATYPES: F16404, two entire specimens (Holotype in AM C30459).

LOCALITY: Long Reef, Manly, N.S.W.; a note with the specimens states 'Found in one place only, in cluster of about 15 on under surface of stone in shallow water'.

NOTES: From Hull Coll.

Genus **Lorica**, H. & A. Adams, 1852**Lorica paucipustulosa** Hull, 1923

Aust. Zool. 3: 197, pl. 27, fig. 3.

PARATYPE: F16088, one entire specimen (Holotype in WAM 11659).

LOCALITY: Rabbit Island, King George Sound, West. Aust.

NOTES: From Hull Coll.

Genus **Lucilina** Dall, 1882**Lucilina tilbrookii** Milne, 1958

Proc. R. zool. Soc. N.S.W. 1956-1957 (1958): 152, figs. 1-4.

HOLOTYPE: F18471, entire specimen with animal.

PARATYPE: F18061, disarticulated valves of one specimen.

LOCALITY: Heron Island, Qd.

Genus **Notoplax** Adams, 1862**Notoplax (Amblyplax) mariae haurakiensis** Ashby, 1926

Proc. malac. Soc. Lond. 17: 26, pl. 2, figs. 3a-c.

= *Notoplax mariae* (Webster 1908) after Iredale and Hull 1931.

PARATYPES: F16755, two entire specimens (Holotype of 3 valves only in AIM, TM 535).

LOCALITY: Hauraki Gulf, N.Z., dredged in 20 fm between Tiri-Tiri and Kawan Islands on dead *Atrina* shells.

NOTES: From Hull Coll.

Notoplax (Amblyplax) oliveri Ashby, 1926

Proc. malac. Soc. Lond. 17: 18, pl. 1, figs. 4a-c.

= *Craspedochiton rubiginosus* (Hutton 1872) after Iredale and Hull 1931.

PARATYPES: F16713, two entire specimens (Holotype in DM M1585).

LOCALITY: Hauraki Gulf, N.Z., dredged in 20 fm between Tiri-Tiri and Kawan Islands on dead *Atrina* shells.

NOTES: From Hull Coll.

Notoplax rotnnestensis Ashby, 1929

J. Proc. R. Soc. West. Aust. 15: 47, figs. 10-13.

PARATYPE: F16718, one entire specimen (Holotype in WAM 12880).

LOCALITY: Bathurst Point, Rottnest Island, West. Aust., collected by Glauert.

NOTES: From Hull Coll.

Genus **Onithella** Mackay, 1933**Onithella helenae** Mackay, 1933

Aust. Zool. 7: 345, pl. 18, figs. 1-13, text figs. 15b, 16b.

HOLOTYPE: F970, entire specimen (Mackay 3676).

PARATYPES: F969, disarticulated valves of one specimen (Mackay 3677), F27316, a slide of the girdle of this specimen. F17980, one entire specimen.

LOCALITY: Alma Bay, Magnetic Island, Qd.

NOTES: F17980 from Hull Coll.

Genus *Stenochiton* Adams & Angas, 1864
Stenochiton pilsbryanus dilatus Iredale & Hull, 1924

Aust. Zool. 3: 287, pl. 36, fig. 11.

PARATYPES: F16089, ten entire specimens (Holotype in WAM 11658).

LOCALITY: Quarantine Station, Albany, West. Aust.

NOTES: From Hull Coll.

Genus *Terenochiton* Iredale, 1914
Terenochiton erratus Hull, 1923

Aust. Zool. 3: 159, pl. 24, figs. 6-9.

PARATYPES: F17982, two entire specimens with animals (Holotype in AM C49541).

LOCALITY: Rabbit Island, King George Sound, West. Aust.

NOTES: From Hull Coll.

Acknowledgements

We wish to thank the curators of the mollusc collections at the Museums in New South Wales, Queensland, South Australia, Western Australia and Tasmania, also at Auckland and Wellington in New Zealand and at the Museum of Comparative Zoology, Harvard University, U.S.A., for their valuable assistance in giving details of chiton types.

References

- ASHBY, E., 1919. Descriptions of six new species of Australian Polyplacophora (four Acanthochitons and two Callistochitons), with other notes. *Trans. R. Soc. S. Aust.* 43: 394-404.
- , 1920a. Chitons of the D'Entrecasteaux Channel, Southern Tasmania. Including additions to the Tasmanian fauna, and descriptions of a new species and a new variety. *Trans. R. Soc. S. Aust.* 44: 263-271.
- , 1920b. A review of *Chiton crispus* Reeve (Order Polyplacophora) and its allies, with proposed recognition of Blainville's *Chiton lineolatus*, and description of three new species. *Trans. R. Soc. S. Aust.* 44: 272-282.
- , 1922. Notes on Australian Polyplacophora with descriptions of three new species and two new varieties. *Trans. R. Soc. S. Aust.* 46: 9-22.
- , 1924a. The chiton fauna (Polyplacophora) of Port Stephens, New South Wales. *Trans. R. Soc. S. Aust.* 48: 312-322.
- , 1924b. Further notes on Australian Polyplacophora with descriptions of three new species. *Trans. R. Soc. S. Aust.* 48: 323-327.
- , 1926. The Acanthoid chitons of New Zealand, with descriptions and figures, including several new species. *Proc. malac. Soc. Lond.* 17: 5-34.
- , 1927. Notes on, and additions to, the chiton fauna of north-west Tasmania, together with a brief review of the genus *Stenochiton*. *Pap. Proc. R. Soc. Tasm.* 1926: 92-117.
- , 1939. Contributions to the fauna of Rottneest Island. *J. Proc. R. Soc. West. Aust.* 15: 47-54.
- , and COTTON, B. C., 1934. New species of chiton from Broome, Western Australia. *J. Proc. R. Soc. West. Aust.* 20: 213-219.
- BASTOW, R. A., and GATLIFF, J. H., 1907. New species of Australian chiton from Queensland. *Enoplochiton torri*. *Proc. Roy. Soc. Vict.* 20: 27-30.
- HEDLEY, C., 1898. Descriptions of new mollusca, chiefly from New Caledonia. *Proc. Linn. Soc. N.S.W.* 23: 97-105.
- , and HULL, A. F. B., 1909. Descriptions of new and notes on other Australian Polyplacophora. *Rec. Aust. Mus.* 7: 260-266.
- , 1912. The Polyplacophora of Lord Howe and Norfolk Islands. *Proc. Linn. Soc. N.S.W.* 37: 271-281.
- HULL, A. F. B., 1912. Description of two new Ischnochitons from Western Port, Victoria. *Proc. Roy. Soc. Vict.* 25: 120-121.
- , 1923. New Australian Polyplacophora, and notes on the distribution of certain species. *Aust. Zool.* 3: 157-166.
- , 1923. New Australian Loricata and notes on the distribution of certain species. 1. *Aust. Zool.* 3: 195-201.

- , 1925. New Queensland Loricates (Phylum Mollusca, Order Loricata). *Proc. R. Soc. Qd.* 36: 109-116.
- , and RISBEC, J., 1930. The Loricates of the New Caledonian region (Class Mollusca—Order Loricata). *Aust. Zool.* 6: 277-286.
- IREDALE, T., and HULL, A. F. B., 1924. A monograph of the Australian Loricates (Phylum Mollusca—Order Loricata) III. *Aust. Zool.* 3: 277-297.
- , 1925. A monograph of the Australian Loricates (Phylum Mollusca—Order Loricata) IV. *Aust. Zool.* 3: 339-362.
- , 1925. A monograph of the Australian Loricates (Phylum Mollusca—Order Loricata) V. *Aust. Zool.* 4: 75-111.
- , 1927. A monograph of Australian Loricates (Phylum Mollusca—Order Loricata). *Royal Zoological Society of New South Wales*. Sydney pp. 1-168.
- , 1930. The Loricates of the Neozelanic Region. *Aust. Zool.* 6: 157-168.
- , 1931. The Loricates of the Neozelanic Region. *Aust. Zool.* 7: 59-76.
- MACKAY, J. S., 1933. A new Loricata from North Queensland. *Aust. Zool.* 7: 345-348.
- MILNE, K. L., 1958. Descriptions of new species of chitons (Mollusca, Loricata). *Proc. R. zool. Soc. N.S.W.* 1956-57: 152-155.
- , 1963. A new deep-water chiton (Polyplacophora: Chitonidae) from Eastern Australia. *J. malac. Soc. Aust.* 7: 25-27.
- SYKES, E. R., 1896. Report on a collection of Polyplacophora from Port Phillip, Victoria. *Proc. malac. Soc. Lond.* 2: 84-93.
- TENISON-WOODS, J. E., 1881. On some new marine Mollusca. *Trans. Proc. Roy. Soc. Vict.* 17: 80-83.
- WINKLEY, H. W., 1894. Eastport Notes. *Nautilus* 8: 78-79.